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=> d his

     (FILE 'HOME' ENTERED AT 16:28:47 ON 11 FEB 2008)

     FILE 'MEDLINE, SCISEARCH, CAPLUS, BIOSIS' ENTERED AT 16:29:00 ON 11 FEB
     2008
L1         11800 S INSULIN? (L) AKT?
L2           415 S L1 AND PY<=1997
L3           336 DUP REM L2 (79 DUPLICATES REMOVED)
L4           336 FOCUS L3 1-
L5             0 S L4 AND ELEGANS
L6           199 S L1 AND ELEGANS
L7             0 S L6 AND PY<=1997
L8           105 DUP REM L6 (94 DUPLICATES REMOVED)
L9           105 FOCUS L8 1-
                 E RUVKUN GARY?/AU
L10           16 S E1
                 E RUVKUN G/AU
L11          194 S E3
L12           29 S E4
L13          247 S E5
L14          486 S L10 OR L11 OR L12 OR L13
L15          188 DUP REM L14 (298 DUPLICATES REMOVED)
L16            9 S L15 AND L1
L17            9 SORT L16 PY

=> d ti so au ab l17 2

L17  ANSWER 2 OF 9     MEDLINE on STN
TI   Caenorhabditis elegans Akt/PKB transduces insulin
     receptor-like signals from AGE-1 PI3 kinase to the DAF-16 transcription
     factor.
SO   Genes & development, (1998 Aug 15) Vol. 12, No. 16, pp. 2488-98.
     Journal code: 8711660. ISSN: 0890-9369.
AU   Paradis S; Ruvkun G
AB   A neurosecretory pathway regulates a reversible developmental arrest and
     metabolic shift at the Caenorhabditis elegans dauer larval stage.  Defects
     in an insulin-like signaling pathway cause arrest at the dauer
     stage.  We show here that two C. elegans Akt/PKB homologs,
     akt-1 and akt-2, transduce insulin
     receptor-like signals that inhibit dauer arrest and that AKT-1
     and AKT-2 signaling are indispensable for insulin
     receptor-like signaling in C. elegans.  A loss-of-function mutation in the
     Fork head transcription factor DAF-16 relieves the requirement for
     Akt/PKB signaling, which indicates that AKT-1 and
     AKT-2 function primarily to antagonize DAF-16.  This is the first
     evidence that the major target of Akt/PKB signaling is a
     transcription factor.  An activating mutation in akt-1, revealed
     by a genetic screen, as well as increased dosage of wild-type akt
     -1 relieves the requirement for signaling from AGE-1 PI3K, which acts
     downstream of the DAF-2 insulin/IGF-1 receptor homolog.  This
     demonstrates that Akt/PKB activity is not necessarily dependent
     on AGE-1 PI3K activity. akt-1 and akt-2 are expressed
     in overlapping patterns in the nervous system and in tissues that are
     remodeled during dauer formation.
```

1.
Related Articles, Links
Paradis S, Ruvkun G.

Caenorhabditis elegans Akt/PKB transduces insulin receptor-like signals from AGE-1 PI3 kinase to the DAF-16 transcription factor.
Genes Dev. 1998 Aug 15;12(16):2488-98.
PMID: 9716402 [PubMed - indexed for MEDLINE]

2.
Related Articles, Links
Ogg S, Ruvkun G.

The C. elegans PTEN homolog, DAF-18, acts in the insulin receptor-like metabolic signaling pathway.
Mol Cell. 1998 Dec;2(6):887-93.
PMID: 9885576 [PubMed - indexed for MEDLINE]

3.
Related Articles, Links
Paradis S, Ailion M, Toker A, Thomas JH, Ruvkun G.

A PDK1 homolog is necessary and sufficient to transduce AGE-1 PI3 kinase signals that regulate diapause in Caenorhabditis elegans.
Genes Dev. 1999 Jun 1;13(11):1438-52.
PMID: 10364160 [PubMed - indexed for MEDLINE]

4.
Related Articles, Links
Li Y, Dowbenko D, Lasky LA.

Caenorhabditis elegans PIAK, a phospholipid-independent kinase that activates the AKT/PKB survival kinase.
J Biol Chem. 2001 Jun 8;276(23):20323-9. Epub 2001 Mar 23.
PMID: 11274160 [PubMed - indexed for MEDLINE]

5.
Related Articles, Links
Hertweck M, Göbel C, Baumeister R.

C. elegans SGK-1 is the critical component in the Akt/PKB kinase complex to control stress response and life span.
Dev Cell. 2004 Apr;6(4):577-88.
PMID: 15068796 [PubMed - indexed for MEDLINE]

6.
Related Articles, Links
Hu PJ, Xu J, Ruvkun G.

Two membrane-associated tyrosine phosphatase homologs potentiate C. elegans AKT-1/PKB signaling.
PLoS Genet. 2006 Jul;2(7):e99. Epub 2006 May 18.
PMID: 16839187 [PubMed - indexed for MEDLINE]

7.
Related Articles, Links
Gami MS, Iser WB, Hanselman KB, Wolkow CA.

Activated AKT/PKB signaling in C. elegans uncouples temporally distinct outputs of DAF-2/insulin-like signaling.
BMC Dev Biol. 2006 Oct 4;6:45.

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	09/844353	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 11:50
L2	29	Ruvkun Gary OR Ogg Scott OR Paradis Suzanne	US-PGPUB; USPAT; EPO; JPO; DERWENT	NEAR	ON	2008/02/12 11:52
L3	7272	AKT AKT-1 AKT-2 AKT$2	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 11:53
L4	101315	INSULIN	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 11:53
L5	11726	elegans	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 11:54
L6	39	l3 l4 l5	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2008/02/12 11:54
L7	340	l3 l4 l5	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2008/02/12 11:54
L8	4	(l3 l4 l5).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2008/02/12 11:54
L9	1838	(AKT AKT-1 AKT-2 AKT$2) SAME (human mammal$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 11:57
L10	173	l9 l4 l5	US-PGPUB; USPAT; EPO; JPO; DERWENT	AND	ON	2008/02/12 11:58
L11	33	l9 l4 l5	US-PGPUB; USPAT; EPO; JPO; DERWENT	SAME	ON	2008/02/12 11:58
L13	82	(AKT AKT-1 AKT-2 AKT$2) SAME (human mammal$3).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 12:01
L14	68	method SAME (AKT AKT-1 AKT-2 AKT$2) SAME (human mammal$3).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 12:04

EAST Search History

L15	1	elegans SAME method SAME (AKT AKT-1 AKT-2 AKT$2) SAME (human mammal$3).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 12:06
L16	7	elegans AND method AND (AKT AKT-1 AKT-2 AKT$2) SAME (human mammal$3).clm.	US-PGPUB; USPAT; EPO; JPO; DERWENT	OR	ON	2008/02/12 12:07